



# Recycling Rechargeable Batteries

A public service program from the  
Rechargeable Battery Recycling  
Corporation

# Who is RBRC???

- Rechargeable Battery Recycling Corporation
- Industry funded, national non-profit public service organization
- Created in 1994; Based in Atlanta
- Mission: public education on responsible rechargeable battery management; facilitate collection of used rechargeable batteries
- Five regional staff members
- Promote RB recycling for public agencies, municipalities, retailers and businesses

# What are rechargeable batteries?

- Nickel Cadmium (ni-cad), nickel metal hydride, lithium ion, and small sealed lead acid batteries (SSLA's under 2 lbs)
- Vary in shape, size, application and chemistry



# Any rechargeable electronic device has a rechargeable battery

## Business Applications

- Two way radios
- Portable Power Tools
- Hand held scanning devices
- Laptop computers
- Cell phones/walkie talkies
- Field Monitoring equipment
- Emergency Lighting

## Consumer Applications

- Remote control toys
- Digital Cameras/Camcorders
- Portable Power Tools
- Laptop Computers
- Cordless Phones
- Portable Vacuum Cleaners
- Portable Shavers
- Solar lighting
- PDAs
- Cell phones
- iPODs/MP3s
- Portable DVD Players



# •What types of batteries can be recycled ?

## Accepted

- Nickel cadmium
- Nickel metal hydride
- Lithium Ion
- Small sealed lead under two lbs.( some exceptions for larger sealed lead batteries)

## NOT Accepted

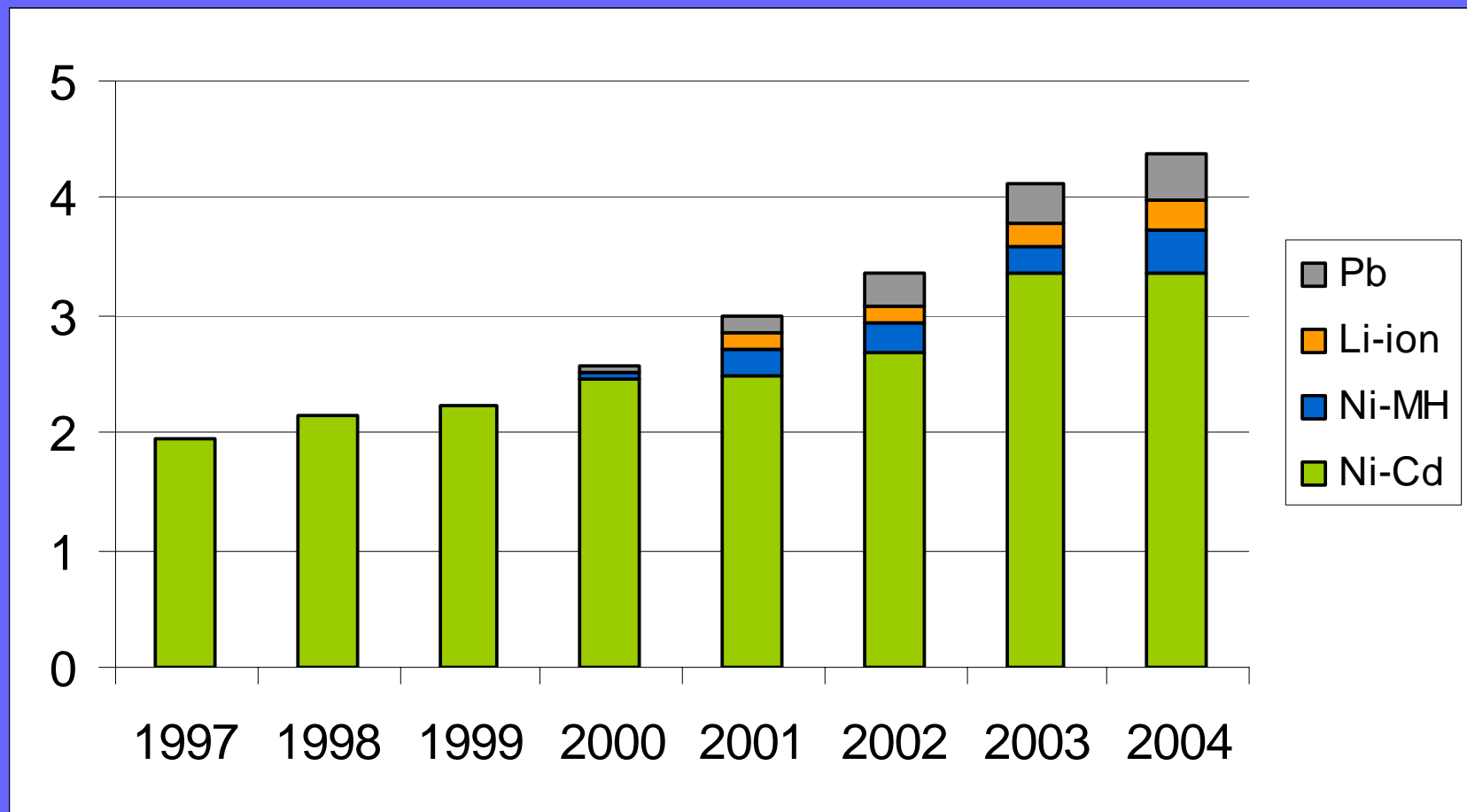
- Primary (non-rechargeable) batteries of any type
  - Alkaline
  - “button”batteries
  - Vehicle lead batteries
  - Wet cell batteries
  - Lithium primary

# Who Recycles with RBRC?

- 43,600 + participants in United States and Canada
  - 37,770 retailers
  - 2,017 public agencies
  - 1,337 communities
  - 1,965 businesses\*

\* Businesses were only added free of charge to RBRC program in May 2005; previously charged a flat rate for box shipments.

# Quantity of rechargeable batteries recycled by RBRC





# RBRC's Recycling program

call2recycle™

## HOW THE PROGRAM WORKS



NATIONAL RECHARGEABLE BATTERY AND CELL PHONE COLLECTION AND RECYCLING PROGRAM



# Environmental Impacts

## Waste Stream:

- Batteries (rechargeable/non-rechargeable) are .2 % of the waste stream (USEPA)
- Rechargeable Batteries are readily recyclable and should be recycled by consumers, businesses, agencies
- Rechargeable batteries = **green technology**; reduce waste – replace 50-300 single service batteries

## Regulatory

- Universal Waste Designation for Ni-cad, Pb
- Ni-cad and small sealed Pb batteries banned from disposal in seven states (FL, IA, ME, MD, MN, NJ, VT)
- Universal waste designation in California
- Federal: Used ni-cad, Pb batteries must be managed as universal waste; prohibits disposal and requires recycling

# Rechargeable Battery Recycling



RBRC uses collection boxes like these to collect batteries at more than 43,000 locations in U.S and Canada.

Labeled as shipping used rechargeable batteries as universal waste

Direct shipment from generator to processor/recycler

Nearly 5 million lbs. of batteries recycled by RBRC in 2005

# How does the program work?

- Enroll and receive an RBRC site identification number
- Pre-Paid, pre-addressed boxes (2,4, or 8 can be ordered)
- Each box holds 40-50 lbs. of batteries/cell phones
- Enroll as many locations as generate batteries
- Mixing battery chemistries is OK
- Bag each battery with bags provided or tape terminal end of each battery
- Seal up full box; begin using backup box
- UPS pick up at your location for free
- Automatic box replenishment system
- Convenient, non-obtrusive program



# Safety Concerns for Shipping

- Important to bag each battery or tape terminal end
- Avoids potential for two battery terminals to touch (if residual charge)
- Bags are affixed to each RBRC box + safety instructions



# What about larger quantities of batteries?

- Generator can ship in DOT approved drums or boxes
- Requires separation of batteries by chemistry
- Labeling instructions must be carefully followed (instructions on our website)
- If a business requests it, RBRC will reimburse freight cost to ship via common carrier ( copy of BOL and invoice)
- Recommended for generators with bulk shipment of >500 lbs. of rechargeable batteries at one location



# How are batteries recycled?

- RBRC uses state of the art, fully permitted metals smelter- Inmetco
- Inmetco is only approved recycler of ni-cads in N.A.
- All battery components are recycled: nickel, iron, stainless steel, cadmium, lead, copper and other metals.
- 50% energy savings in metals recovery over metal production from virgin ore, plus reductions in CO<sub>2</sub>, NO<sub>x</sub> and SO<sub>2</sub>
- Batteries are transported from generator to recycler directly via UPS as universal waste shipment
- All batteries are recycled domestically



# Who are some of the larger recyclers with RBRC?

- ✓ **Federal Defense Agencies** (Air Force bases, Army bases, military research agencies)
- ✓ **Municipal services** (utility, public works, mass transit, parks)
- ✓ **Major retailers**
- ✓ **Airlines, railroad industry**
- ✓ **Aerospace Technology**
- ✓ **Oil and Gas Industry**
- ✓ **Service Industry**
- ✓ **Utilities**
- ✓ **Manufacturers**

# Environmental Liability Issues

- RBRC Program is in compliance with all local, state and federal environmental regulations
- RBRC's program is designed, approved and funded by the manufacturers of rechargeable batteries
- RBRC's program is model program referenced by USEPA and State of California battery law
- RBRC has \$5,000,000 environmental impairment/pollution liability insurance coverage
- RBRC's processor, Inmetco, has substantial additional environmental insurance coverage for battery processing/recycling. Certificate of Recycling can be provided
- RBRC program has safely recycled over 26 million lbs. of batteries
- Environmental Audit of program/processor is welcomed

# Economic Considerations

- RBRC program is free to any U.S. or Canadian business, public agency, retailer or municipality
- Significant cost savings over paying to have batteries recycled along with other universal/hazardous wastes (up to \$4/lb. plus service charge for management through environmental service contractor)
- How can RBRC program be free?
  - License recycling seal to 350 companies
  - Funding support from battery manufacturers as environmental stewardship initiative



# **COST to Recycle Rechargeable Batteries/Cell phones**

## **RBRC Pays for:**

- ✓ Collection boxes
- ✓ Transport via UPS
- ✓ Recycling through licensed processor
- ✓ Educational Materials
- ✓ Database/reporting

**Your public agency, community or business pays for:**

**\$0, zip, nada**

# How do I sign up?

- Enroll on-line at [www.rbrc.org](http://www.rbrc.org) or [call2recycle.org](http://call2recycle.org)
- Enroll by calling 1-877-2RECYCLE
- Enroll via email by contacting RBRC regional recycling manager ([twarren@rbrc.com](mailto:twarren@rbrc.com))
- Boxes arrive within 10 days.

# Convenient recycling for consumers

- Retailers, small businesses, recycling centers enroll and accept used rechargeable batteries or batteries and cell phones
- 40,000 + locations in US and Canada
- Enter zip code on RBRC website to find local retailer and community recycling locations



# National retailers, local businesses participate in recycling for the public



# Educational tools



# Paid advertising in national print media





# Television Advertising to promote recycling awareness



# Why recycle through RBRC?

- **Convenient:** Pre-paid, preaddressed boxes, UPS pick-up at your facility
- **No need to aggregate batteries** from multiple locations; every generation point can have their own collection box
- Automatic replenishment system for boxes
- **Responsible environmental management** of batteries and cell phones
- **Direct shipment** of batteries as universal waste for recycling from the generator to the processor
- **Database** for tracking shipments; reporting on quantities recycled by location
- **No cost to participate.** Industry funded environmental program

# Recycle these, for free, anytime, anywhere





# For more information

- 800-8-BATTERY or 877-2-RECYCLE

- Log on to RBRC

- [www.rbrc.org](http://www.rbrc.org) or [call2recycle.org](http://call2recycle.org)

Use zip code locator to find collection sites in your area

- Contact:

Tim Warren

RBRC

South Central

Regional Recycling  
Mgr.

636-405-0444

[Twarren@rbrc.com](mailto:Twarren@rbrc.com)

# Questions???

